DOCUMENT RESUME

ED 272 237 JC 860 418

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TITLE State Support Priorities: A Test Case in Ohio.
PUB DATE Aug 86
NOTE 16p.
PUB TYPE Reports - Descriptive (141) -- Viewpoints (120)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Declining Enrollment; *Educational Finance; Educational Supply; Equalization Aid; *Expenditure per Student; *Finance Reform; *Financial Policy; Financial Support; Full State Funding; Full Time Equivalency; *State Aid; Two Year Colleges
IDENTIFIERS *Funding Formulas; *Ohio

ABSTRACT

In 1980, the Ohio Board of Regents (OBR) proposed several alternative funding formulas for the state's public-assisted institutions in anticipation of enrollment declines. Two alternatives, involving subsidy ceilings and free competition for students, were dismissed in favor of a third alternative involving a system of voluntary restraints in which Ohio public institutions would plan to maintain or decrease their enrollments in an orderly manner under several mandated restrictions. This alternative also included a modification of the existing enrollment-driven subsidy model that would permit money earned by growing institutions to be transferred to those in decline. As part of the review of these alternatives, enrollment and subsidy data were analyzed, revealing that: (1) there was a strong correlation between enrollment growth and the cost of education as measured by total institutional expenditures per full-time equivalent student (FTE); (2) growing institutions were on the whole operating at a lower instructional subsidy per FTE than declining institutions; and (3) there was already diversity in educational subsidies per FTE within the system with apportionments per FTE for universities ranging from $1,710 to $4,211, for community colleges from $1,819 to $2,641, and for technical colleges from $1,772 to $3,976. While it is difficult for the OBR to allow declining institutions to experience destructive financial problems, an argument for allowing the free market approach to prevail, at least in a modified form, could be made on the basis that growing institutions need more money while declining ones need less; and that if an institution's revenue fluctuates with enrollment, it will likely work to operate in a manner similar to profit-making corporations and be more responsive to student needs and more efficient and accountable in terms of staffing. An enrollment-driven state support system which includes a relief loan fund for institutions which face financial exigency is recommended. (RO)

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# STATE SUPPORT PRIORITIES:

# A TEST CASE IN OHIO

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August 1986

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JC 860 418

# STATE SUPPORT PRIORITIES: A TEST CASE IN OHIO

James L. Catanzaro and Daniel D. Savage
August, 1986

Like many state controlling boards, the Ohio Board of Regents (OBR) has been planning for enrollment decline in the state's postsecondary educational system for several years. Enrollment is a critical factor for public institutions in Ohio because the state has historically used a formula heavily influenced by FTE enrollment to determine state subsidy.

In 1980, OBR proposed several alternatives for the state's public-assisted institutions in decline. The first proposal would have the legislature adopt enrollment targets for each institution and thereby set subsidy ceilings. This would presumably distribute students throughout the system so that no school would be significantly impacted by decline. It was admitted that this alternative was at variance with student freedom of choice and that it was unlikely the legislature would pursue such a course.

A second alternative had Ohio institutions free to compete for students. Those schools which were perceived to meet student needs best would thrive; the others, of course, would not and would be adversely affected financially. In the worst case, some might suffer financial crises which could threaten the state's invested resources. This alternative was put aside because of the risk it posed to state investment and for obvious political considerations.

A third alternative, a system of "voluntary" restraints in which Ohio public institutions would plan to "maintain" or "decrease" their enrollments in an orderly manner, carried several mandated restrictions. Proposals for new dormitories, extended campuses, new academic programs, and other such efforts to

improve a given institution's enrollment at the expense of others would be proscribed. In addition, OBR suggested a modification of the existing enrollment-driven subsidy model in order to protect or "buffer" declining institutions from the effects of enrollment decline. Essentially money earned by growing institutions would be transferred to those in decline.

As a part of our review process, we examined recent enrollment and subsidy data from Ohio's public institutions and were interested to learn that there was a strong correlation (R=.69 for all public colleges and universities) between enrollment growth and the cost of education as measured by total institutional expenditures per full-time equivalent (FTE) students. (A full-time equivalent or FTE is derived by dividing the total number of credit hours by fifteen — the theoretical full-time load of one student.) Scattergrams and correlations are shown in Appendix A.

The data indicate that growing institutions are, on the whole, operating at a lower instructional subsidy per FTE than declining institutions. While certain institutions may receive greater subsidies per FTE because of their mix of courses (in Ohio some courses are subsidized at a higher rate), it is clear that declining institutions are forced to spread fixed costs over an increasingly shrinking number of students which results in higher costs per FTE.

An important effect of such a subsidy model which protects declining institutions from the immediate impact of enrollment decline by supporting fixed costs, however, is to transfer money that would have gone to growing institutions under a purely enrollment-driven model to declining or stable institutions. The result, shown graphically in Exhibit A, is that growing institutions are required to operate at lower subsidies per FTE than declining or stable institutions. Clearly the cost of expansion is not recognized in this alternative and there is no reward for meeting better the public's needs.

Exhibit D reveals that already there is diversity in educational subsidies per FTE within the system with apportionments per FTE for universities ranging from $1,710 to $4,211, community colleges from $1,819 to $2,641, and technical colleges from $1,772 to $3,976. Continuing to protect fixed costs will result in even greater diversity of expenditures per FTE.

From a public policy standpoint, there are problems associated with the traditional FTE subsidy model, especially in times of decline. Institutions will likely increase spending for marketing and student recruitment. Some may argue that that is a waste of resources. Schools may become overly trendy as they attempt to attract students. Declining institutions may face financial crises including reductions in workforce since a very high percentage of revenue will vary with enrollment while expenses are largely fixed (a problem shared by the vast majority of private organizations). Declining enrollments will result in poor utilization of campus capital resources as well. Finally, this method of funding is highly decentralized - some would argue overly decentralized - as individual institutions influence their claim on state resources by managing enrollment.

While it is certainly difficult for OBR, from a political standpoint, to allow declining institutions to experience destructive financial problems, there are considerable arguments on the side of allowing the free market approach to prevail, at least in a modified form. In general, growing institutions need more money and declining institutions need less. Protection of some, therefore, denies access to others. After all, it is unlikely that a student in the northern part of the state will attend a southern school simply to balance enrollments.

If an institution's revenue fluctuates with enrollment, it will likely work to operate in a manner similar to profit-making corporations. There will

be real incentives for good management, in other words. Institutions will have to listen to their students, research their needs, and provide programs which meet those needs. Overstaffing in schools in decline will have to be corrected, making the system far more efficient, accountable and student accessible.

* * * * *

OBR's policy of promoting a fixed-cost protection subsidy model represents a major departure from the traditional model in Ohio, and it is questionable public policy. Institutions which plan poorly, or who make bad decisions, will be protected from the consequences of those decisions. The fixed-cost subsidy model even creates incentives for managing an enrollment decline while building a larger physical plant. At the same time, rapidly growing institutions will be penalized by an increasingly lower subsidy per FTE. This problem becomes acute when these institutions have to increase full-time staff in order to service additional students.

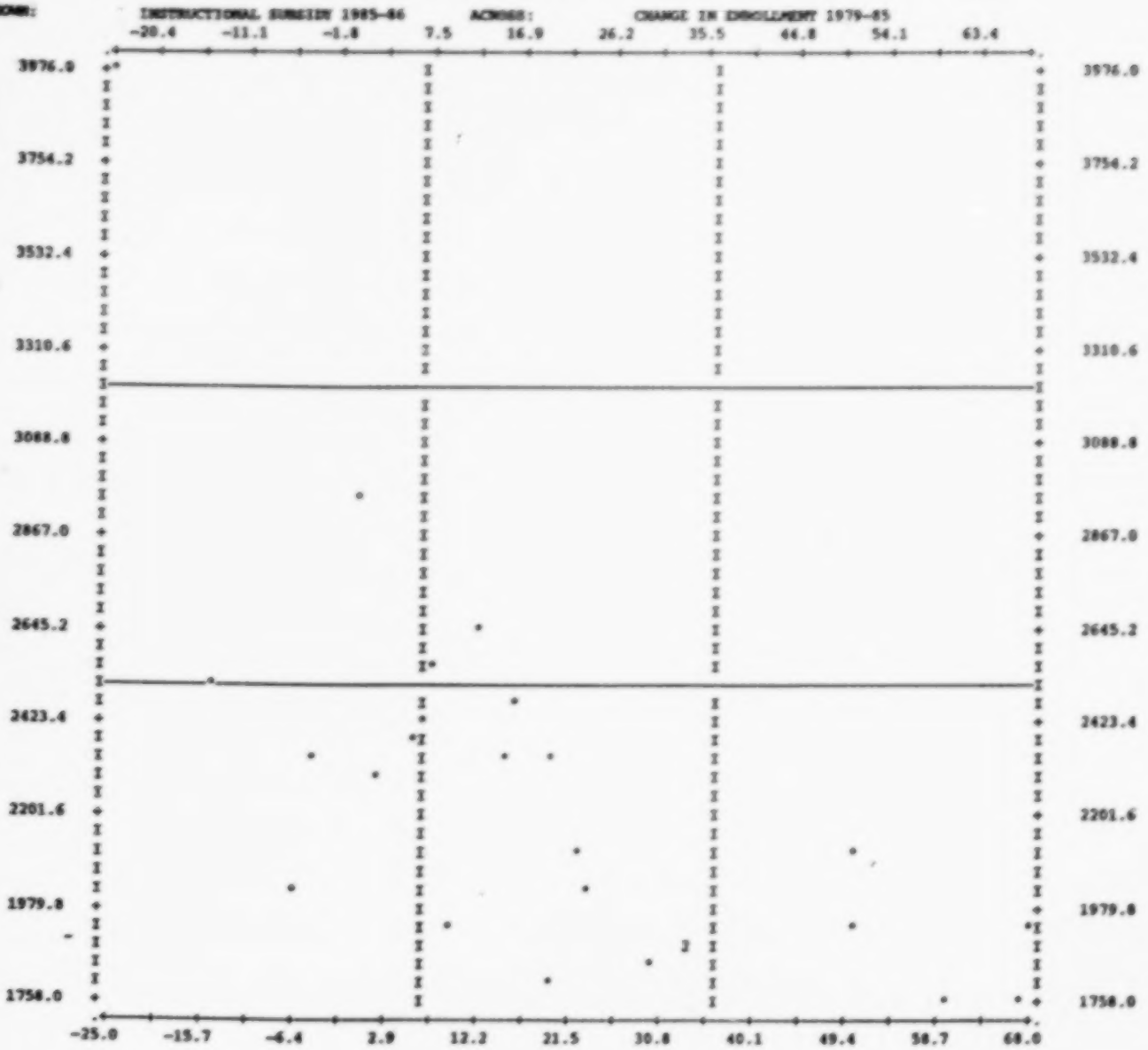
The alternative of legislatively-set institutional subsidies would provide even greater incentives to decrease the level of service to students. It would reduce competition among campuses in influencing students' perceptions of quality. It would remove the few existing incentives for innovative programs aimed at potential service populations. Many institutions would likely decide to decrease their enrollments and save money while increasing their selectivity (and perhaps their school's prestige).

An instructional subsidy model which is sensitive to enrollment is the best tool we have for causing institutions to make real world decisions. Common sense dictates that revenues should vary in significant measure with enrollment. State tax dollars should support teaching and research, certainly not bad management. There are a wide range of options available to institutions

planning for declining enrollments. They can cut costs. They can build an endowment to provide a steady stream of supplementary income. They can attract students by merit through curriculum development. They can provide public service and research for additional funding.

In the meantime, state support should flow freely and rapidly to institutions that are being managed well: those which plan successfully for the future and build their community of service. We recommend, therefore, an enrollment-driven state support system which includes as well a relief loan fund for institutions which face financial exigency.

cj
8/12/86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3976.0
3754.2
3532.4
3310.6
3088.8
2867.0
2645.2
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STATISTICS..

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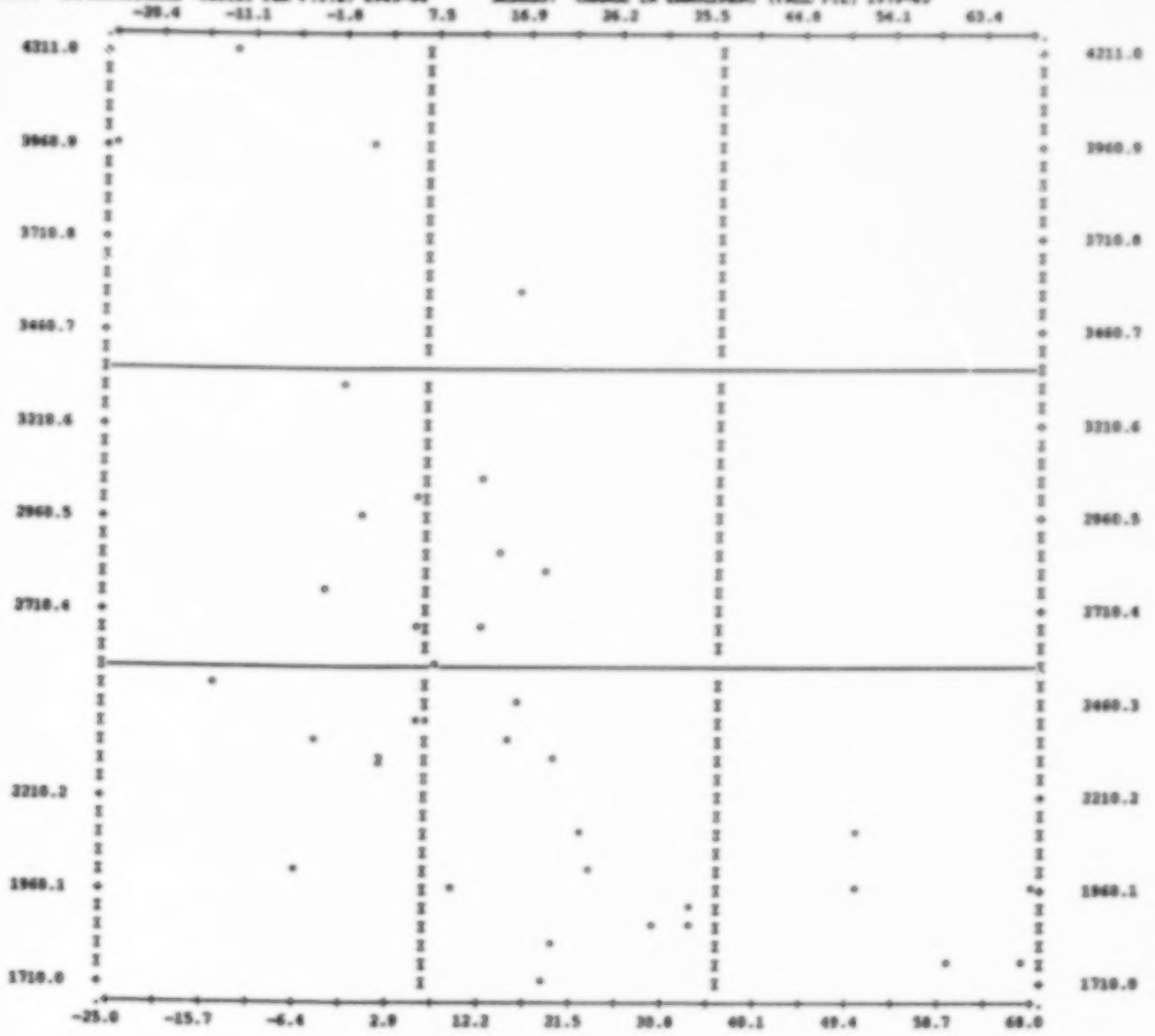
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STATISTICS..

| | | | | | |
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| PLOTTED VALUES = | 37 | EXCLUDED VALUES= | 0 | MISSING VALUES = | 0 |

# OHIO BOARD OF REGENTS
## INSTRUCTIONAL SUBSIDIES
## FISCAL YEAR 1985-86

| UNIVERSITIES | FY1986 EARNINGS |
|---|---|
| AKRON | 58,158,068 |
| BOWLING GREEN | 46,944,771 |
| CENTRAL | 4,517,950 |
| CINCINNATI | 99,372,662 |
| CLEVELAND | 42,932,114 |
| KENT | 52,977,563 |
| MIAMI | 38,341,976 |
| OHIO STATE | 203,518,736 |
| OHIO UNIV | 50,088,847 |
| TOLEDO | 47,901,051 |
| WRIGHT | 42,859,579 |
| YOUNGSTOWN | 32,969,269 |
| MCOT | 12,067,377 |
| NEOUCOM | 6,636,226 |
| SUB TOTAL | 739,286,189 |

| BRANCHES | FY1986 EARNINGS |
|---|---|
| ASHTABULA | 1,593,452 |
| BELMONT | 1,237,472 |
| CHILLICOTHE | 1,763,287 |
| CLERMONT | 1,231,662 |
| COLUMBIANA | 1,730,725 |
| FIRELANDS | 1,803,505 |
| GEAUGA | 347,140 |
| HAMILTON | 2,413,514 |
| IRONTON | 1,365,385 |
| LANCASTER | 2,249,315 |
| LIMA | 1,655,878 |
| MANSFIELD | 1,714,770 |
| MARION | 1,190,873 |
| MIDDLETOWN | 2,422,952 |
| NEWARK | 1,433,637 |
| STARK | 2,442,364 |
| TRUMBULL | 2,091,999 |
| TUSCARAWAS | 1,411,652 |
| WALTERS | 3,675,680 |
| WAYNE | 1,018,895 |
| WESTERN OHIO | 1,232,971 |
| ZANESVILLE | 1,901,980 |
| SUB TOTAL | 37,929,108 |

| COMMUNITY COLLEGES | FY1984 EARNINGS |
|---|---|
| CUYAHOGA | 24,085,439 |
| LAKELAND | 7,859,478 |
| LORAIN | 8,273,384 |
| RIO GRANDE | 2,122,395 |
| SINCLAIR | 16,653,958 |
| EDISON | 2,230,492 |
| SHAWNEE | 3,534,794 |
| SOUTHERN | 1,895,983 |
| SUB TOTAL | 48,656,123 |

| TECHNICAL COLLEGES | FY1984 EARNINGS |
|---|---|
| AGRICULTURAL | 2,552,905 |
| BELMONT | 2,203,910 |
| CENTRAL OHIO | 2,048,984 |
| CINCINNATI | 6,589,782 |
| CLARK | 3,551,712 |
| COLUMBUS | 11,946,209 |
| HOCKING | 6,125,009 |
| JEFFERSON | 2,521,943 |
| LIMA | 3,386,086 |
| MARION | 1,582,921 |
| MUSKINGUM | 2,386,361 |
| NORTH CENTRAL | 3,064,023 |
| NORTHWEST | 1,290,353 |
| OWENS-NORTH | 6,416,604 |
| OWENS-SOUTH | 535,108 |
| STARK | 4,057,081 |
| TERRA | 4,516,724 |
| WASHINGTON | 1,454,774 |
| SUB TOTAL | 66,228,489 |
| GRAND TOTAL | 912,099,909 |

APPENDIX C

INSTITUTIONAL ENROLLMENT ANALYSIS
TOTAL FTE

| UNIVERSITIES | 1979-80 | 1985-86 | % Change |
|---|---|---|---|
| Akron | 17,869 | 20,307 | 14% |
| Bowling Green * | 16,585 | 17,623 | 6% |
| Central State | 2,224 | 2,642 | 19% |
| Cincinnati | 27,058 | 23,598 | -13% |
| Cleveland | 13,170 | 12,872 | -2% |
| Kent* | 16,550 | 17,539 | 6% |
| Miami* | 16,270 | 16,632 | 2% |
| Ohio State* | 50,890 | 51,480 | 1% |
| Ohio University* | 14,555 | 16,361 | 12% |
| Toledo | 14,357 | 17,143 | 19% |
| Wright | 10,397 | 12,017 | 16% |
| Youngstown | 12,479 | 11,959 | -4% |
| MCOT | 553 | 748 | 35% |
| NEOUCOM | 184 | 437 | N/A |
| University Total | 213,141 | 221,358 | 4% |
| Community Colleges | | | |
| Cuyahoga - M | 5,645 | 4,613 | -18% |
| Cuyahoga - W | 5,944 | 5,626 | -5% |
| Cuyahoga - E | 2,022 | 2,617 | 29% |
| Lakeland | 3,605 | 4,321 | 20% |
| Lorain | 3,514 | 3,589 | 2% |
| Edison | 930 | 1,207 | 30% |
| Shawnee | 1,413 | 1,888 | 34% |
| Southern | 639 | 718 | 12% |
| Sinclair | 7,489 | 7,102 | -5% |
| Rio Grande | 727 | 1,093 | 50% |
| Community College Total | 31,928 | 32,774 | 3% |

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*Institution with statutory enrollment limit

| TECHNICAL COLLEGES | 1979-80 | 1985-86 | % Change |
|---|---|---|---|
| Belmont | 676 | 1,136 | 68% |
| Cincinnati | 2,936 | 3,389 | 15% |
| Central Ohio | 803 | 872 | 9% |
| Clark | 1,653 | 1,408 | -15% |
| Columbus | 4,332 | 4,661 | 8% |
| Hocking | 2,086 | 3,484 | 67% |
| Jefferson | 980 | 1,044 | 7% |
| Lima | 1,214 | 1,460 | 20% |
| Marion | 640 | 790 | 23% |
| Muskingum | 945 | 997 | 6% |
| North Central | 1,073 | 1,243 | 16% |
| Northwest | 510 | 682 | 34% |
| Owens-North | 2,521 | 3,066 | 22% |
| Owens-South | 0 | 198 | N/A |
| Stark | 1,434 | 2,290 | 60% |
| Terra | 1,518 | 1,519 | 0% |
| Washington | 460 | 688 | 50% |
| Agriculture | 861 | 642 | -25% |
| Technical Total | 24,642 | 29,569 | 20% |

| BRANCHES | 1979-80 | 1985-86 | % Change |
|---|---|---|---|
| Ashtabula | 702 | 539 | -23% |
| Belmont | 502 | 568 | 13% |
| Chillicothe | 630 | 760 | 21% |
| Clermont | 677 | 624 | -8% |
| Columbiana | 702 | 835 | 19% |
| Firelands | 795 | 718 | -10% |
| Geauga | 134 | 124 | -7% |
| Hamilton | 932 | 961 | 3% |
| Ironton | 499 | 624 | 25% |
| Lancaster | 923 | 886 | -4% |
| Lima | 755 | 984 | 30% |
| Mansfield | 966 | 902 | -7% |
| Marion | 616 | 686 | 11% |
| Middletown | 1,089 | 1,013 | -7% |
| Newark | 806 | 769 | -5% |
| Stark | 1,216 | 1,006 | -17% |
| Trumbull | 1,075 | 987 | -8% |
| Tuscarawas | 605 | 603 | 0% |
| Walters | 2,024 | 1,777 | -12% |
| Wayne | 426 | 532 | 25% |
| Western Ohio | 421 | 569 | 35% |
| Zanesville | 689 | 775 | 12% |
| Branch Sub-Total | 17,184 | 17,242 | 0% |
| Off-Campus Total | 4,447 | 4,093 | -8% |
| Grand Total | 291,342 | 305,036 | 5% |

EXHIBIT D
INSTRUCTIONAL SUBSIDY BY FTE

| Universities | Total Instructional Subsidy 1985-6 | FTE 1985/6 | Subs/FTE 1985/6 |
|---|---|---|---|
| Akron | 58,158,068 | 20,307 | 2,864 |
| Bowling Green | 46,944,771 | 17,623 | 2,664 |
| Central | 4,517,950 | 2,642 | 1,710 |
| Cincinnati | 99,372,662 | 23,598 | 4,211 |
| Cleveland | 42,932,114 | 12,872 | 3,335 |
| Kent | 52,977,563 | 17,539 | 3,021 |
| Miami | 38,341,976 | 16,632 | 2,305 |
| Ohio State | 203,518,736 | 51,480 | 3,953 |
| Ohio University | 50,088,847 | 16,361 | 3,061 |
| Toledo | 47,901,051 | 17,143 | 2,794 |
| Wright | 42,859,579 | 12,017 | 3,567 |
| Youngstown | 32,969,269 | 11,959 | 2,757 |
| TOTALS | 720,582,586 | 220,173 | 3,273 |

| Community Colleges | Total Instructional Subsidy 1985-6 | FTE 1985/6 | Subs/FTE 1985/6 |
|---|---|---|---|
| Cuyahoga | 26,085,639 | 12,856 | 2,029 |
| Lakeland | 7,859,478 | 4,321 | 1,819 |
| Lorain | 8,273,384 | 3,589 | 2,305 |
| Edison | 2,230,492 | 1,207 | 1,848 |
| Rio Grande | 2,122,395 | 1,093 | 1,942 |
| Sinclair | 16,653,958 | 7,102 | 2,345 |
| Shawnee | 3,534,794 | 1,888 | 1,872 |
| Southern | 1,895,983 | 718 | 2,641 |
| TOTALS | 68,656,123 | 32,774 | 2,095 |

| | Total Instructional Subsidy 1985-6 | FTE 1985/6 | Subs/FTE 1985/6 |
|---|---|---|---|
| **Technical Colleges** | | | |
| Agricultural | 2,552,905 | 642 | 3,976 |
| Belmont | 2,203,910 | 1,136 | 1,940 |
| Central Ohio | 2,046,984 | 872 | 2,347 |
| Cincinnati | 6,589,782 | 3,389 | 1,944 |
| Clark | 3,551,712 | 1,408 | 2,523 |
| Columbus | 11,946,209 | 4,661 | 2,563 |
| Hocking | 6,125,009 | 3,484 | 1,758 |
| Jefferson | 2,521,943 | 1,044 | 2,416 |
| Lima | 3,386,086 | 1,460 | 2,319 |
| Marion | 1,582,921 | 790 | 2,004 |
| Muskingham | 2,386,361 | 997 | 2,394 |
| North Central | 3,064,023 | 1,243 | 2,465 |
| Northwest | 1,290,353 | 682 | 1,892 |
| Owens-North | 6,416,604 | 3,066 | 2,093 |
| Owens-South | 535,108 | 198 | 2,703 |
| Stark | 4,057,081 | 2,290 | 1,772 |
| Terra | 4,516,724 | 1,519 | 2,973 |
| Washington | 1,454,774 | 688 | 2,114 |
| TOTALS | 66,228,489 | 29,569 | 2,240 |

| | Total Instructional Subsidy 1985-6 | FTE 1985/6 | Subs/FTE 1985/6 |
|---|---|---|---|
| **Branches** | | | |
| Ashtabula | 1,593,452 | 539 | 2,956 |
| Belmont | 1,237,472 | 568 | 2,179 |
| Chillicothe | 1,763,287 | 760 | 2,320 |
| Clermont | 1,231,662 | 624 | 1,974 |
| Columbiana | 1,730,725 | 835 | 2,073 |
| Firelands | 1,803,505 | 718 | 2,512 |
| Geauga | 347,140 | 124 | 2,800 |
| Hamilton | 2,413,514 | 961 | 2,511 |
| Ironton | 1,365,385 | 624 | 2,188 |
| Lancaster | 2,249,315 | 886 | 2,539 |
| Lima | 1,655,878 | 984 | 1,683 |
| Mansfield | 1,714,770 | 902 | 1,901 |
| Marion | 1,190,873 | 686 | 1,736 |
| Middletown | 2,422,952 | 1,013 | 2,392 |
| Newark | 1,433,637 | 769 | 1,864 |
| Stark | 2,442,364 | 1,006 | 2,428 |
| Trumbull | 2,091,999 | 987 | 2,120 |
| Tuscarawas | 1,411,652 | 603 | 2,341 |
| Walters | 1,018,895 | 1,777 | 573 |
| Wayne | 1,018,895 | 532 | 1,915 |
| Western Ohio | 1,232,971 | 569 | 2,167 |
| Zanesville | 1,901,980 | 775 | 2,454 |
| TOTALS | 35,272,323 | 17,242 | 2,046 |

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